

ACADEMY

Newsletter

DEDICATED
TO SCIENTIFIC
RESEARCH AND
EDUCATION,
INSPIRING
RESPECT FOR
THE NATURAL
WORLDTHE FUTURE OF
Steinhart Aquarium

Recently there has been a dawning of the "age of aquariums" in this country. The public's fascination with the aquatic world is best summed up by Loren Eisley who said, "If there is magic on this planet, it is contained in water." It was this same magic that led Ignatz Steinhart in 1916 to provide the funds that built the Steinhart Aquarium. It is this same magic which brings us together today, first to save the Steinhart from the ravages of time, and secondly to plan for a future Steinhart that brings modern exhibitry to the forefront.

If passed in November, Proposition C on the city ballot will provide the funds needed to reverse the deterioration affecting the oldest, continually operating municipal aquarium in the country. Approval of Proposition C will fix the pipes; repair the roof; replace salt-impregnated concrete; install new life support systems; remove asbestos, lead paint and other toxins; and improve disabled access.

But repair and improvements to the Steinhart's infrastructure will not in itself be enough. A separate fund-raising campaign to finance the improvements to the numerous displays and exhibits in the Steinhart will be undertaken shortly.



"If there is magic on this planet, it is contained in water."

The Steinhart presently houses one of the more significant collections of living fishes in North America. Indeed, our collection continues to grow not only in size but also in age, as there are some fish that have been "on duty" longer than any of the staff. The exhibits, which display the animals that are the aquarium's true hallmark, also need to be repaired and updated. Through the use of new display technologies, improvements in life support techniques and the incorporation of a

comprehensive exhibit plan, we are committed to creating a Steinhart Aquarium for the next century.

The ambiance and feel of the Steinhart created over 70 years ago will not be lost. The result of all our work will be a healthy building housing an incredibly diverse living collection of aquatic life for future generations to see and enjoy. Wouldn't it be wonderful if Mr. Steinhart could be here with us today to witness the continued fulfillment of his dream?



You can help save Steinhart Aquarium: Every Academy member in San Francisco has received a YES ON C sign in the mail — remember to place the sign in your window for all to see! To find out how else you can help the campaign, call 351-1995. Then be sure to vote YES on Proposition C on November 7th.

MEMBERS MEETING

FLORA AND FAUNA
OF CHINA • THE NATIVES

with Nancy Pickford — October 11, 2 p.m. & 7:30 p.m.

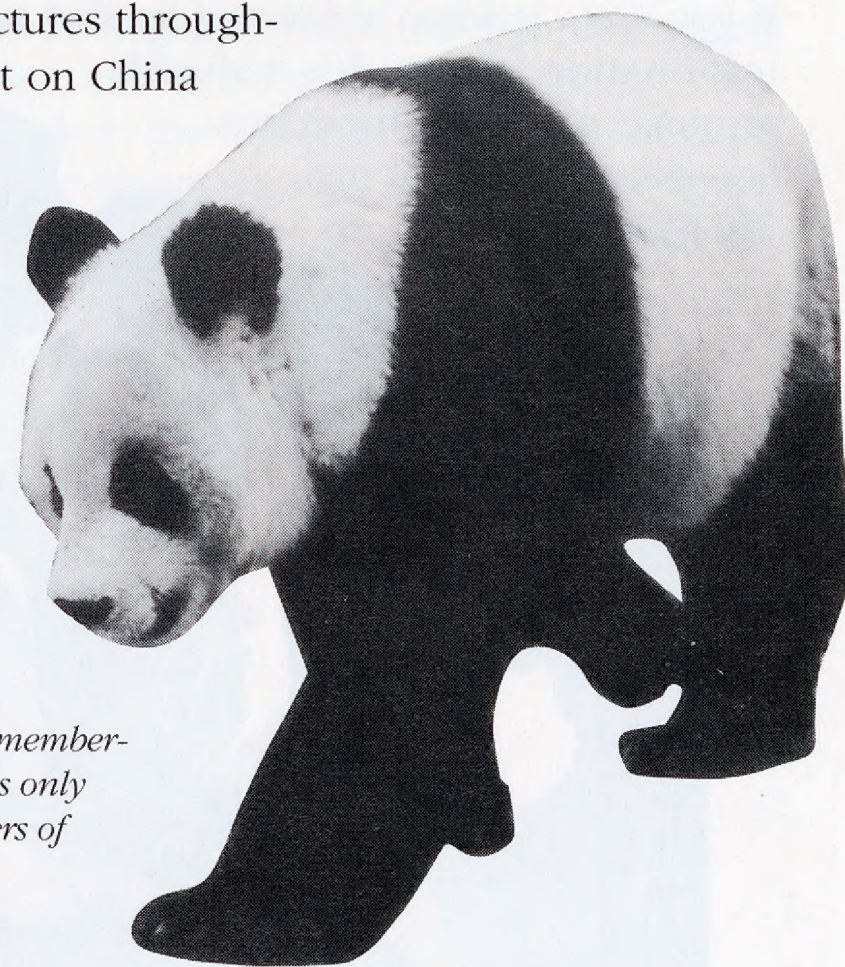


With six and a half percent of the world's land area, China has a complex and varied climate that includes high mountains, great rivers, broad plains, vast deserts, lush grassland and dense forests. Such diversity makes China home to many kinds of wildlife, including rare birds and mammals such as the giant panda, the golden monkey and the red-crowned crane. China also has some of the richest and most diverse botanical resources in the world, with more than 32,000 species of higher plant life, including the dawn redwood, a "living fossil."

Approximately 30 years ago, the People's Republic of China made a long-term commitment to establish nature reserves that would protect its vast and varied treasure of plants and animals, its complex ecosystems and unusual geologic sites. Today these reserves number more than 300, and 500 are planned by the year 2000.

Nancy Pickford will present a lecture on the plants and animals of China, illustrated with slides she took on her more than 20 trips to the country and other parts of Asia. She is a director of the Society for Asian Art, a member of the National Committee on U.S./China Relations and serves on the executive committee of the San Francisco-Shanghai Sister City Committee. Pickford, a former chair of the Docent Council at the Academy of Sciences, lectures throughout the West on China and Asia.

Please present your membership card at the Academy's entrance and again at the auditorium. This members meeting is provided as a benefit of membership and thus is only open to members of the Academy.



Photos: Nancy Pickford



Racing Toward the 11th Annual Run to the Far Side

10K

and 5K fun is just around the corner when the Academy presents the 11th annual Run to the Far Side, Sun., Nov. 26. Get ready to burn off that Thanksgiving turkey and participate in an important Academy fun(d)-raising event!

Events of Astronomical Proportions

Current Sky Shows: To shorten your waiting time, please write your name on the back of your members planetarium passes before turning them in at the box office counter.

OCTOBER SCHEDULE

Sky Show / Description	Weekday	Weekend
Knock, Knock... search for extraterrestrial life	2 p.m.	2 & 4 p.m.
Encounter With a Giant the solar system's largest planets	---	1 & 3 p.m.
StarTalk tour of the night sky	---	noon
Where in Space is Carmen Sandiego? a family show	---	11 a.m.

For more information, please call 750-7141.

Ulysses: A Journey Around the Sun

B. Dean Lecture: The Earth and the other planets in our solar system are confined to a narrow belt on a horizontal plane near the sun's equator. Spacecraft launched from Earth share this motion, which explains why they have traditionally been restricted to studying the sun from a limited equatorial perspective. Scientists have long desired to probe the sun's polar regions. Launched in 1990, the Ulysses mission is a joint venture of American and European space agencies to access the unexplored regions above and below the sun.

Dr. Edward J. Smith and Dr. Richard G. Marsden, the principle American and European investigators of the Ulysses mission, respectively, will present the major scientific findings of the spacecraft's long odyssey.

Tues., Oct. 31 — 7:30 p.m.; Tickets \$3 each

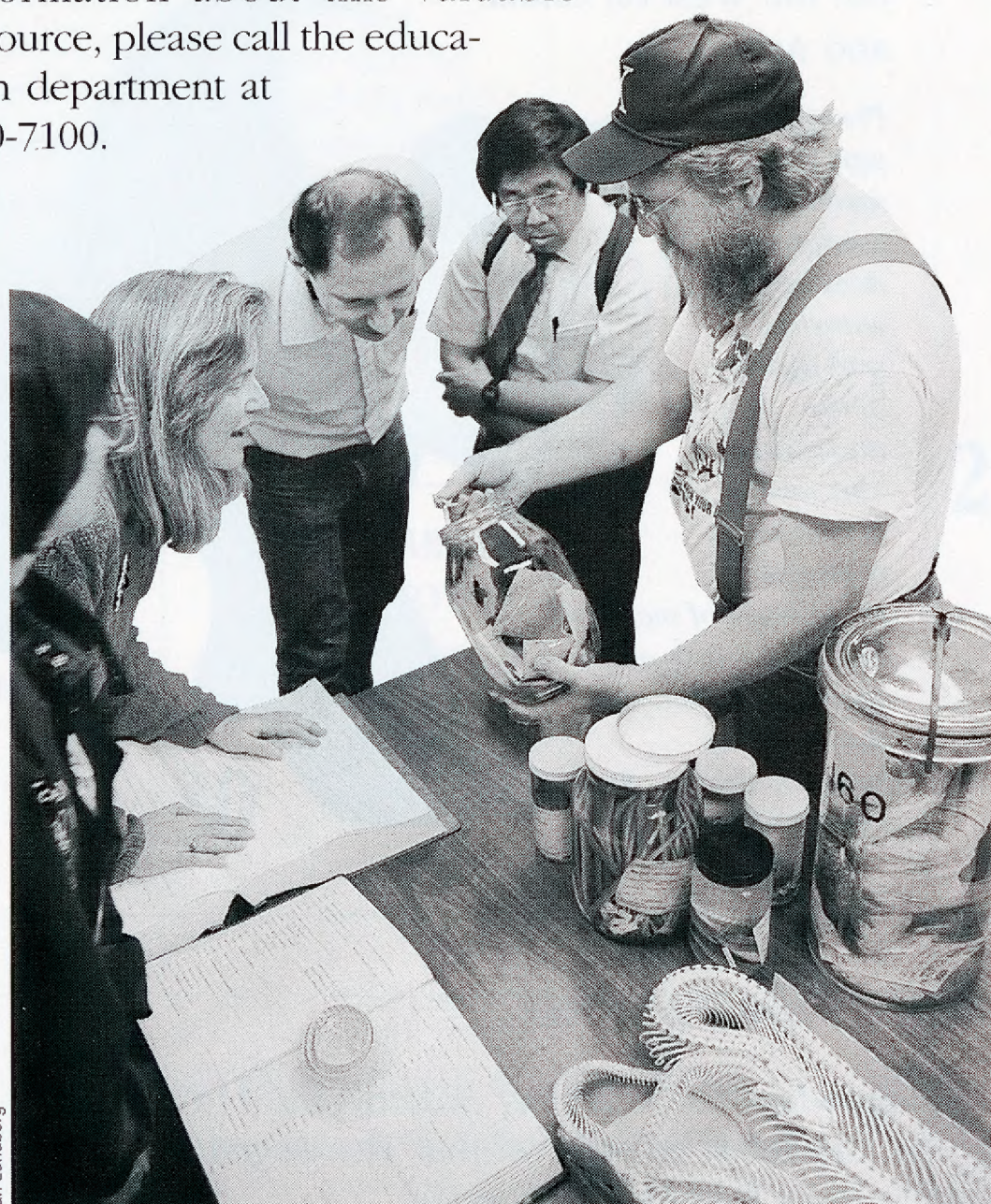
The Fall '95 series continues with Dr. Bernard Sadoulet, U.C. Berkeley Center for Particle Physics, Nov. 21, on "Dark Matter"; and Dr. Leslie Young, NASA-Ames, Dec. 12, on "Solar System Oddities."

For advance tickets, use order form on back of newsletter. Tickets may be available at the door on a standby basis the day of the lecture. Please call 750-7141, for more information.

Academy Workshops Enrich Teachers

The Academy of Sciences brings the world of natural history to classrooms through instructive teacher workshops. Biology Forum promotes science education through a series of workshops on a variety of topics, providing teachers with current scientific findings and an opportunity to meet with fellow teachers and Academy researchers.

The workshops for high school educators will take place on Oct. 28, Feb. 3 and Apr. 20. The programs for middle school teachers occur throughout the year, the next one occurring on Oct. 21. If you are a teacher or know a teacher who would like more information about this valuable resource, please call the education department at 750-7100.



Jan Lundberg

Author's Day

Native American Storyteller Joseph Bruchac

Joseph Bruchac will share from his collection of Native American myths and legends and read from his new book *Long River* in an Author's Day presentation Sun., **Oct. 8** at 2 p.m. This one-hour event, held in the Science In Action area of Cowell Hall, will delight young and old alike with Bruchac's magical versions of traditional tales.

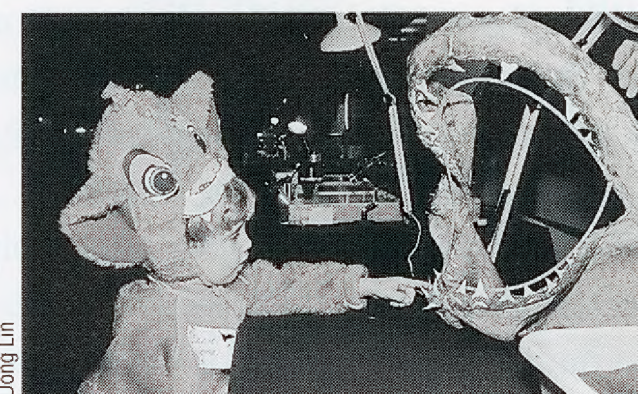
Drawing on his Abenaki heritage, Bruchac has performed throughout Europe and the United States as a storyteller. He is the author of more than 60 books for children and adults, including *Keepers of the Earth* and *Dawn Land*.

OUT OF THE OOZE!

Celebrate Halloween at the Academy

Slimy creepers, gooey crawlers and other beasts, DEAD and ALIVE, come out for a night of horrific spectacle Friday, **Oct. 27** from 6:30 p.m. to 9 p.m. Our scientific staff gives the gory details about nature's oozy creatures. Kids collect a bag of ghoulish goodies and everyone enjoys a frightfully delicious buffet while showing off their scary costumes.

Tickets for this terrifyingly good time are \$40 for adults. Children 18 and under are free, but they must



Dong Lin

be accompanied by an adult. This event is limited to Academy members and their families. To receive an invitation, please call 750-7223.

Academy Science Downtown in New

The Academy is making its residence in San Francisco downtown working crowd place this fall. Escape the rat race nature with this fascinating Friday San Francisco State University's L are held from Oct. 16 through Dec. ticipants can take individual classe

Insects of the Amazon Basin, Oct varied insect fauna found in the Dr. Norman Penny. View color including the largest beetle in the longest wingspan.

The Origins of Birds (or The Di Learn about the evolution of bi their ancient dinosaur and repti Dr. Jacques Gauthier.

Biodiversity of Tropical Coral R variety of life that fills the coral Oceans. Instructor Dr. Terry G threats to these treasure troves.

The Greatest Story Ever Told: F Nov. 17 — Dr. Robert Drewes 7,000-kilometer Land-Rover tri to the edge of the Congo Basin. remote areas and uncovering ar been described by a scientist.

Tropical Plants of Economic Imp plants, both common and little- food, medicine, dyes, waxes and Daniel explains how they are g in this slide-illustrated lecture.

Life In the Food Chain: The Bio Dec. 15 — The role of the great predator along our coastline is them or fear them, we're better dead. Instructor Dr. John McC their biology and behavior.

The San Francisco State University's Downtown Market St. Individual classes cost \$10 r series of six classes may be purchased for tration is recommended. For more inform

SPECIAL

New Places, New Species: Endangered Animals in Laos and Burma

Only within the last few years have the countries of Laos and Myanmar, formerly Burma, opened their doors to Western scientists. Years of war and political turmoil have created major concerns regarding the fate of this area's endangered species, such as the tiger and the Sumatran rhino. On a more positive note, initial surveys of the rugged Annamite mountain range, which separates Laos and Vietnam, are turning up species previously unknown to science.

Dr. Alan Rabinowitz, research biologist and Asia program director for the Wildlife Conservation Society (WCS), is among the first to study the virtually unknown status of wildlife in Laos and Myanmar. He will share his field experiences and discuss the newly discovered species from this region. A Preceding the lecture at 6 p.m., a special reception with wine and hors d'oeuvres will give you a unique opportunity to meet with Rabinowitz.

Tues., Oct. 17 — 7:30 p.m.

Lecture only: \$6 Academy & WCS members/\$10 nonmembers

Reception and Lecture: \$36 Academy & WCS members/\$45 nonmembers

This is the first in a series of lectures by internationally recognized conservationists, co-sponsored by the Wildlife Conservation Society. Upcoming lectures include: Dr. Elizabeth Bennett, Nov. 14, on wildlife populations in Borneo; Dr. Charles Munn, Mar. 5, on Amazonian macaws and parrots; and Dr. Claudio Campagna, May 16, on South American marine mammals.



EDUCATION

ists Take Nature v Series of Classes

ources easily available to the San Fran-
by holding classes near their work-
and explore the world of science and
y evening series taking place at the
owntown Extension Center. Classes
5, from 5:15 through 6:30 p.m. Par-
or sign up for the whole series.

. 6 — Discover the incredibly
Amazon region with instructor
ful and bizarre specimens,
e world and the moth with the

osaurs Still Live), Oct. 20 —
ds and their relationship to
ian ancestors with instructor

efs, Nov. 3 — Explore the rich
reefs of the Indian and Pacific
osliner will explain the many
of biological beauty.

rom the Cape to the Congo,
shares tales from his recent
p from Capetown, South Africa
Hear his adventures exploring
nphibian species that had never

ortance, Dec. 1 — Tropical
known varieties, are used as
spices. Instructor Dr. Tom
own, locally processed and sold

ogy of Sharks, Seals and Surfers,
white shark as a top level
now better understood. Love
off with them live rather than
osker will give an update on

owntown Extension Center is located at 425
members/\$12 nonmembers and the entire
\$55 members/\$65 nonmembers. Preregis-
tration, please call 750-7100.



Marty Sohl

TRADITIONAL ARTS

Republic of Georgia Dance

Khadra, a San Francisco repertory com-
pany, features traditional folk music and
dance from the republic of Georgia.
Badri Esatia and Temur Koridze, pro-
fessional Georgian dancers, will join the
company in a spectacular performance
of acrobatic dexterity.

Sat., Oct. 7 — 1 p.m. to 2 p.m.
(Auditorium)

Egyptian Beledy Dance

The Aswan Dancers perform Egyptian
beledy dance (the roots of belly danc-
ing) featuring two special guests, Nadia
Hamdi from Egypt and "Morocco" from
New York. Hamdi's *beledy* dances were
handed down from her mother and
grandmother. The dances originated in
the Mohamid Ali Street area of Cairo
where *beledy* artists live and work.

Sat., Oct. 21 — 1 p.m. to 2 p.m.
(Auditorium)

Parisian Bistro Music

The ensemble Baguette Quartette, "le
musique de Paris," was founded by
French accordionist Odile La Vault in
1993. The quartet includes a button ac-
cordion, violin, bass and mandolin, play-
ing Parisian popular dance music from
the 1920s to the 1940s. The group's rep-
ertoire consists of *valse musette*, tan-
gos, *pasos dobles*, fox trots and marches.

Sat., Oct. 28 — 1 p.m. to 2 p.m.
(African Hall)

Explore cultural traditions from around the
world. Free after general admission.
Call 750-7164, for more information.

ACADEMY TRAVEL

"In the end, we will conserve only what we love, we will love only
what we understand, we will understand only what we are taught."

Baba Dioum, Senegalese Conservationist

Travel Program Mailing List

The purpose of the travel program is to offer national and
international trips to Academy members that place par-
ticipants in the context of specially chosen natural environ-
ments. It is unique among travel programs in that each of the
tours are led by one or two Academy specialists. Teaching,
understanding and conservation are the ultimate goals.

To do this, we join with tour operators who provide the
opportunity for Academy experts to lead these special trips
and who assist with promotional materials in the form of di-
rect mail. In an effort to reduce paper waste and costs, we
would like to send these mail pieces only to those members
who would like to continue receiving them.

If you would like to discontinue receiving travel program
announcements in the mail, please help us by filling out the
form on the back of the newsletter.

Alaska Overland

This exciting tour has been designed for participants to experi-
ence the exceptional diversity of habitats, wildlife, cultures and
vistas that make Alaska a unique travel opportunity. With Dave
and Bev Kavanaugh as your guides, you will visit Katmai Na-
tional Park, Wrangell/St. Elias National Park, Denali National Park,
Columbia Glacier, Fairbanks and Anchorage. Pre- and post-trip
extensions to Glacier Bay and the Arctic also are available.

June 28-July 13; Cost: \$5,475 per person (double occupancy),
airfare not included

Southern Brazil: The Pantanal, Iguazu Falls and Coastal Rain Forest

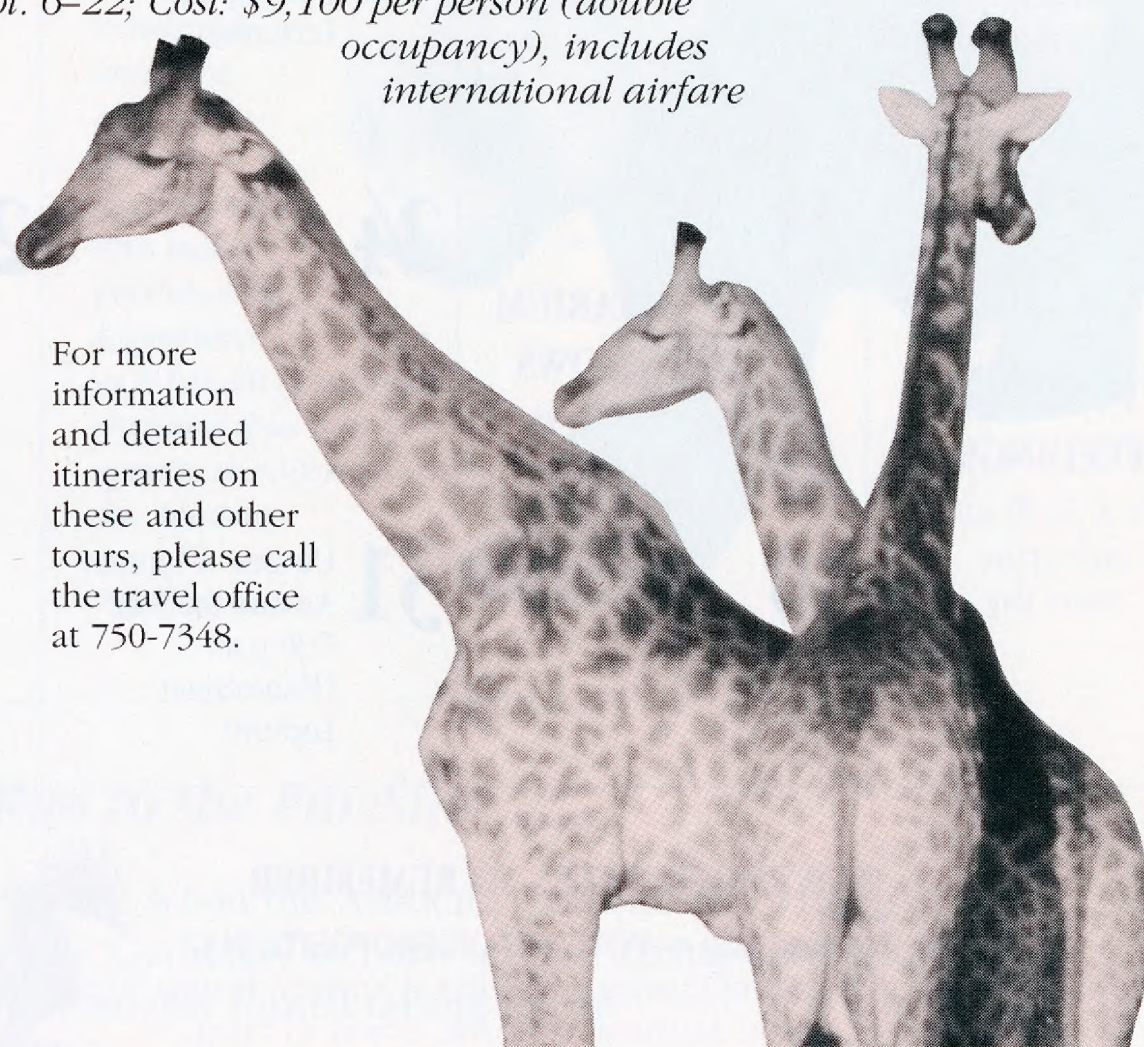
Brazil has the highest biodiversity in the world, making it a won-
derful destination for naturalists. One of its least-visited ecosys-
tems is the Pantanal, a vast alluvial plane on the western frontier.
This area of forests, savannas and seasonally flooded swamp-
land contains a density of tropical wildlife at levels unknown
outside of Africa and has the world's largest concentration of
wading birds. With Frank Almeda as your guide, you also will
explore Rio de Janeiro, the Rio primate center, the coastal rain
forest in Itatiaia National Park and the magnificent Iguazu Falls.

July 15-28; Cost: \$3,975 per person (double occupancy), airfare
not included

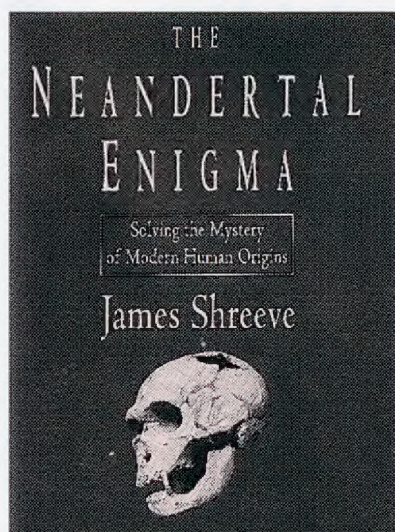
South Africa by Gooneybird

South Africa, a land of remarkable character and diversity, is one
of the most exciting destinations in the world today. Enjoy the
flexibility and privacy of traveling by private aircraft (known
affectionately as "gooneybirds") to the rolling green hills of
Zululand, where the British battled the powerful Zulu kings.
With Bob Drewes as your guide, you'll travel to the rugged
Drakensberg Mountains, known as the "Barrier of Spears"; view
classic big game animals in the Lowveld; and end up at Cape
Town and nearby Table Mountain, with beautiful wine lands,
flowers and Cape Dutch architecture. There is an optional ex-
tension to Victoria Falls.

Sept. 6-22; Cost: \$9,100 per person (double
occupancy), includes
international airfare



For more
information
and detailed
itineraries on
these and other
tours, please call
the travel office
at 750-7348.



The Neandertal Enigma

Among all forms of human ancestors, Neandertals
(the current preferred spelling) hold a special place
in our imaginations. They had brains bigger than
ours, buried their dead and showed other signs of
full human consciousness, but they never devel-
oped art or many other complex cultural expres-
sions. Who were they and what was their fate?

Science writer James Shreeve presents up-
to-the-minute data about the Neandertals and of-
fers his own theory on their destiny in this lec-
ture based on the research for his book *The Neandertal Enigma*. Shreeve

is a contributing editor of *Discover* and co-author of *Lucy's Child*, with
paleoanthropologist Donald Johanson. A question and answer period and
a book-signing will follow the lecture.

Wed., Oct. 25 — 7:30 p.m.
Cost: \$6 members/\$10 nonmembers

Special lectures are presented in the auditorium.
Use order form for tickets. For more information, please call 750-7128.

LECTURES

THE
ACADEMY
STORE



Calling All Adventurers!

The Wild Planet Trekpak belt is perfect for exploring near and far — forests, beaches, deserts, city streets and even your own backyard! Outfit your carryall explorer's belt with all the cool gear available from Wild Planet, like the 4-in-1 adventure tool, the megascope set, the twist 'n turn field light and the canteen combo. Prices range from \$5.95 to \$18.95.

OCTOBER

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1  Joseph Bruchac, 2 p.m. (Author's Day)	2	3 HIGHLIGHT TOURS Free one-hour highlight tours are offered daily.	4 Free Day First Wednesday of each month	5 MEMBERS Please bring your membership card when you visit the Academy	6 SCIENCE IN ACTION General programs Mon.-Fri. at 11:30 a.m. Children's programs Sat. at 12:30 & 3 p.m.; this month's topic is a celebration of <i>Mountains</i> .	7 Republic of Georgia Dance, 1 p.m. (Traditional Arts)
8	9 DOLPHIN FEEDINGS are at 10:30 a.m., and 12:30, 2:30 and 4:30 p.m. every day	10	11 Flora and Fauna of China, 2 & 7:30 p.m. (Members Meeting)  <small>Nancy Pickford</small>	12	13	14
15 PLANETARIUM SKY SHOWS on weekends at 11 a.m., and at noon, 1, 2, 3 and 4 p.m.	16	17 Endangered Animals In Laos and Burma, 7:30 p.m. (Special Lectures)	25 The Neandertal Enigma, 7:30 p.m. (Special Lectures)	26 SPECIAL EXHIBITS "Dancing to the Fossil Record," through Jan. 8	20	21 Egyptian <i>Beledy</i> Dance, 1 p.m. (Traditional Arts) Middle School Biology Forum (Education)
22 PENGUIN FEEDINGS are at 11:30 a.m. and 4 p.m. every day	23 PLANETARIUM SKY SHOWS on weekdays at 2 p.m.	24	25 LASERIUM SHOWS Thursday-Sunday, evenings, call 750-7138	26 PERMANENT EXHIBITS Discovery Room: The hands-on-everything place designed for kindergarten through sixth grade is ideal for learning about the natural world through unguided play activities. Through June, open noon to 4 p.m. Tue.-Fri. & 10 a.m. to 4 p.m. weekends.	27 4th Annual Halloween Party, 6:30-9 p.m.	28 Parisian Bistro Music, 7:30 p.m. (Traditional Arts) High School Biology Forum (Education)
29	30	31 Ulysses: A Journey Around the Sun, 7:30 p.m. (Planetarium Lecture)				

NOVEMBER DATES TO REMEMBER

- 7 - Election Day ~ VOTE YES ON PROPOSITION C!
14 - Dr. Elizabeth Bennett, "Effects of Hunting on Wildlife in Northern Borneo," (Special Lectures)
18-19 - Native American Art Market, 10 a.m. to 5 p.m.
26 - Run to the Far Side 5K/10K walk or run



UPCOMING MEMBERS MEETINGS

- Nov. 15 - Bears, with Matt Reid
Dec. 13 - Life In the Oceans, with Norbert Wu
Jan. 11 - Hummingbirds, with Dr. Luis Baptista

California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

Address Correction Requested

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San Francisco

ORDER FORM

SPECIAL LECTURES	Qty/Mem.	Qty/Nonmem.	Total
Endangered Animals in Laos and Burma / Oct. 17 Lecture only Reception and Lecture	x \$6 x \$36	x \$10 x \$45	= =
The Neandertal Enigma / Oct. 25 Effects of Hunting Wildlife in Northern Borneo / Nov. 14 Lecture only Reception and Lecture	x \$6 x \$36	x \$10 x \$45	= =
Amazonian Macaws and Parrots / Mar. 5 Lecture only Reception and Lecture	x \$6 x \$36	x \$10 x \$45	= =
South American Marine Mammals / May 16 Lecture only Reception and Lecture	x \$6 x \$36	x \$10 x \$45	= =
TOTAL \$			

PLANETARIUM'S B. DEAN LECTURE SERIES	Quantity	Total
Ulysses: A Journey Around the Sun / Oct. 31	x \$3	=
Dark Matter / Nov. 21	x \$3	=
Solar System Oddities / Dec. 12	x \$3	=
TOTAL \$		

DONATIONS	
<input type="radio"/> I would like to support the Academy with a donation.	

TRAVEL DIRECT MAIL	
<input type="radio"/> I would like to discontinue receiving travel brochures and information.	

TOTAL PAYMENT ENCLOSED	\$

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(Check one) <input type="radio"/> Check <input type="radio"/> VISA <input type="radio"/> MasterCard <input type="radio"/> American Express	

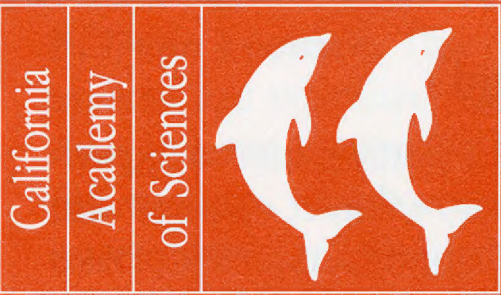
Credit card charges gladly accepted over \$10.

Card# _____ Exp. Date _____

Signature _____

MAKE CHECK PAYABLE TO: C.A.S. and mail with this coupon form to:
Membership Office, Ticket Services
California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118
Daytime Phone _____

Include a self-addressed, stamped envelope for each series to which you subscribe.
No refunds/exchanges.



The Academy includes the
Natural History Museum,
Steinhart Aquarium and Morrison
Planetarium. Open every day
from 10 a.m. to 5 p.m. July 4-
Labor Day we're open 9 a.m to 6 p.m.

VISITOR SERVICES

Academy Information: 415-750-7145
Academy Store: 750-7410
Admissions: 750-7159
Aquarium: 750-7247
Biodiversity Center: 750-7361
Development Office: 750-7216
Docent Tours: 750-7155
Education Office: 750-7100
Group Information: 750-7159
Job Hotline: 750-7333
Laserium: 750-7138
Lectures: 750-7128
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Planetarium: 750-7141
Planned Giving: 750-7216
Security: 750-7000
Switchboard: 221-5100
Travel: 750-7348
Volunteer Services: 750-7154
Weekend Information: 750-7375

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